ABHILASH BISWAS

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA   **Pittsburgh, PA**
M.S. in Public Policy and Data Analytics (GPA: 4.00/4.00)   *Aug 2021-May 2023*
- Coursework: Causal inference, Machine learning, optimization, AI ethics and fairness, policy, and management

St Stephen's College, University of Delhi   **New Delhi, India**
B.A. Economics   *Jul 2014-May 2017*
- Graduated with rank 1 out of 100 students in the Department of Economics

TECHNICAL SKILLS

Programming: Python, SQL, AWS, R, STATA, SurveyCTO
Tools/packages: PyTorch, Scikit-Learn, PySpark, OpenCV, Scikit-Image, GurobiPy, R Shiny
Statistics and ML: Supervised and unsupervised learning, Randomized Control Trial, A/B testing, probability theory

PROFESSIONAL EXPERIENCE

eScience Institute, University of Washington   **Seattle, WA (Remote)**
Data Science for Social Good summer fellow   *Jun 2021-Aug 2023*

- Developed a python library to detect and quantify bright satellite streaks affecting astronomical images
- Applied **computer vision techniques** on noisy astronomical images from earth-based telescopes to create tools for astronomers to quantify the magnitude of the issue

IDinsight (website here)   **New Delhi, India**
Manager (10 months), Senior Associate (1 year), Associate (2 years)   *Aug 2017-May 2021*

Key Responsibilities: Project Management, Large scale data collection, Quantitative and qualitative data analysis, Innovations in sampling methods, Innovations in remote surveying, Client management
Highlight: Co-founded Data on Demand (DoD) – a Strategic Business Unit housed within IDinsight that uses technological innovation to make high quality data accessible to policymakers

- Led DoD's **technical plan** to expand collection of low-cost ground-level data for policymakers across all Indian states
- Led the product team to develop **scalable software systems** for pan-India data collection management
- Led agile workflow based innovations to develop remote data collection capabilities used to provide real time data to the central government of India, World Bank, and the Gates Foundation during COVID-19 lockdown
- Supervised a team of 20 centrally located and 500 decentralized members to provide statistical evaluation support to government of India's flagship welfare program

PROJECTS

Helping Johnson County predict people in need of proactive mental health services. Presentation here.
- Implemented an **end to end machine learning pipeline** containing analytical formulation, data preprocessing from multiple county datasets, supervised models, **temporal validation**, **bias/fairness audit** and field trial design
- Collaborated (in progress) with the county to deploy the model and improve it based on feedback from the field

Predicting police violence in Chicago. Presentation here**.** GitHub repo here**.**
- Created **classification and unsupervised models** using Census, citizen reported data and Chicago city's open data to predict chances of police violence at a Census tract level in Chicago.

Optimizing placement of a new grocery store in Pittsburgh to minimize food insecurity. GitHub repo here

- Applied **constrained optimization and geospatial analysis** to find the store location that can maximize food access.

HealthAccess – a proof of concept app to find nearest hospitals. GitHub repo here.

- Deployed python-based **web scraping, API extraction and text pattern matching** to provide curated information on nearby healthcare facilities to users seeking medical help.

Analyzing trends in 2021 Myanmar Coup. R markdown file here.

- Used census and citizen reported data to analyze the characteristics and trends in civilian detainment, imprisonment, and death during the coup.